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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,366	02/11/2005	Jurgen Meyer	032301.411	9856

25461 7590 03/07/2007

SMITH, GAMBRELL & RUSSELL
SUITE 3100, PROMENADE II
1230 PEACHTREE STREET, N.E.
ATLANTA, GA 30307-3592

EXAMINER	
HAILEY, PATRICIA L	
ART UNIT	**PAPER NUMBER**
1755	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/524,366	MEYER ET AL.	
	Examiner	Art Unit	
	Patricia L. Hailey	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/08/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicants' remarks and amendments, filed on December 8, 2006, have been carefully considered. No claims have been canceled or added; claims 1-22 remain pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on February 11, 2005.

Withdrawn Rejections

The 101 and 112(2) rejections of claim 6 stated in the previous Office Action have been withdrawn in view of Applicants' amendment thereto.

The 102(b) rejection of claims 1, 3, 7, and 17-20 as being anticipated by Bock et al. (6,020,419) stated in the previous Office Action, has been withdrawn in view of Applicant's persuasive arguments traversing this rejection.

Maintained Rejections

Double Patenting

2. Claims 1, 7, and 8 stand provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4-9 of copending Application No. 10/532,202.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are directed to silanised, structurally modified, pyrogenically produced silicas, whereas the claims in the copending application are directed to pulverulent materials and mixtures thereof, in that they contain one or more surface-modified and structure-modified pyrogenically prepared metalloid or metallic oxides, later defined as a "silanized structure-modified silica having alkylsilyl groups attached to said silica" (claim 5 in the copending application).

Both sets of claims also recite the same physical chemical properties. See instant claim 9 and claim 9 of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 1-4, 7, and 9-16 stand rejected under 35 U.S.C. 102(b as being anticipated by Deller et al. (U. S. Patent No. 5,776,240).

Deller et al. disclose granules based on silicon dioxide. The particles may be prepared by dispersing pyrogenically prepared silicon dioxide in water, spray drying it and silanizing the granules obtained with agents such as halosilanes, alkoxysilanes, silazanes, and/or siloxanes. See col. 1, line 48 to col.2, line 5 of Deller et al.

Exemplary agents include organosilanes of the type $(RO)_3Si(C_nH_{2n+1})$, where R is alkyl and n = 1 to 20. Preferably, the silanizing agent is trimethoxyoctylsilane. See col. 3, lines 20-21 and col. 5, lines 32-33 of Deller et al.

The silanization may be carried out by spraying the granular material with the silanizing agent, and subsequently heat-treating (under a protective inert gas, such as nitrogen) the mixture at a temperature of from 105 C to 400 C over a period of 1 to 6 hours.

The silanization can be carried out with heatable mixers equipped with spraying facilities; examples include ploughshare mixers disk dryers, or fluidized bed dryers. See col. 6, lines 6-11 of Deller et al.

In view of these teachings, Deller et al. anticipate claims 1-4, 7, and 9-16.

5. Claims 1-4 and 7-11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ettlinger et al. (U. S. Patent No. 5,665,156).

Ettlinger et al. teach silanized, pyrogenically prepared silicic acids that are prepared by treating said silicic acids with an organosilane selected from the group consisting of $(RO)_3SiC_nH_{2n+1}$, in which n is from 10 to 18 and R is alkyl. See col. 1, lines 22-27 of Ettlinger et al.

Examples of the organosilane include hexadecyltrimethoxysilane and octadecyltrimethoxysilane. See col. 2, lines 14 and 15 of Ettlinger et al.

Patentees' silicic acids are prepared in that the pyrogenically prepared silicic acids are placed in a mixer, and while being mixed the silicic acids are sprayed,

optionally first with water and then with the organosilane compound; mixing is continued from 15 to 30 minutes, and then temperature stabilization is done at a temperature ranging from 100°C to 160°C over a period of time from 1 to 3 hours. See col. 2, lines 8-24 of Ettlinger et al.

The silanized silicic acids of Ettlinger et al. have properties comparable to those recited in claim 8, except for the DBP value; however, given that the reference teaches the remaining claimed properties, one skilled in the art would anticipate the silanized silicic acids of Ettlinger et al. to exhibit a comparable DBP value. See Table 2 of Ettlinger et al.

The silanized silicic acids disclosed in Ettlinger et al. are employable as thickening agents in liquids, such as water-dilutable paints, resins, rubber, cosmetic articles, toner powders, as agents for improving pourability, and as reinforcing fillers. See col. 3, lines 13-20 of Ettlinger et al.

In view of these teachings, Ettlinger et al. anticipate claims 1-4 and 7-11.

New Ground of Rejection

The following New Ground of Rejection is being made in view of Applicants' submitted art, Nargiello et al. (U. S. Patent No. 6,193,795).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al. (U. S. Patent No. 5,776,240) or Ettlinger et al. (U. S. Patent No. 5,665,156) taken with Nargiello et al. (6,193,795), Applicants' submitted art.

Both Deller et al. and Ettlinger et al. are relied upon for their teachings in the aforementioned rejections. Neither reference specifically discloses that the respective silanized pyrogenically produced silicas are "structurally modified".

Nargiello et al. disclose the production of low structure pyrogenic metal oxides, via subjecting said oxides to a dry milling process whereby the pyrogenically produced metal oxide is contacted in an agitating zone with an energy specific force. See the Abstract of Nargiello et al.

Exemplary metal oxides suitable for this process include pyrogenic silicon dioxide, which can be hydrophobized with silane/organosilicon compounds. See col. 6, lines 4-30 of Nargiello et al., where properties of said silicon dioxide are disclosed; note that these properties are comparable to that recited in Applicants? claim 8, and also to those disclosed in both Deller et al. and Ettlinger et al.

Nargiello et al. also disclose the feasibility in dry milling the aforementioned silicon dioxide, said feasibility including particle size reduction, reducing the DBP absorption, and increasing the bulk density. See col. 5, lines 46-67 of Nargiello et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of either Deller et al. or Ettlinger et al. by performing the additional dry milling process of Nargiello et al., and thereby obtain Applicants? invention.

Response to Arguments

The above rejections of record are maintained, because Applicants? claims do not explicitly define what is meant by "structurally modified". Such a limitation encompasses, for example, the physical modifications as altering the shape of the silanized pyrogenic oxides. Further, the art of record is continued to read upon

Applicants? claims in their present form; thus the limitation "structurally modified" is alternatively considered to be inherently taught by Deller et al. and Ettlinger et al.

For these reasons, Applicants' arguments are not persuasive.

Conclusion

10. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on December 8, 2006, prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia L. Hailey

Patricia L. Hailey/plh
Examiner, Art Unit 1755
March 5, 2007

J.A. LORENGO
SUPERVISORY PATENT EXAMINER